

ABSTRACT

A reciprocating pump vent-dump and methods of use for utilization in the hydrocarbon industry. The device is preferably used with barrel pumps although it may be used with tubing pumps. The device is positioned at the bottom of the wellbore immediately above the stinger and immediately below above the standing valve and comprises a sliding piston within an outer housing. The device may be opened pulling upwards on the pump drive mechanism thereby allowing fluid within the production tubing to drain back into the formation as long as the pump drive mechanism is held up. The device closes when the pump is returned to normal operation. The method of spotting chemicals requires a pre-measured quantity of chemicals at the surface which is sucked into the tubing string when the valve is opened followed by a pre-measured quantity of make-up fluid which is drawn into the well thereby placing the chemicals at the required point. The technique used for spotting chemicals may be used for flushing flower sand from the wellbore and the device may also be used to dump the hydrostatic head in the production tubing.